

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-32 (cancelled)

33. (Currently Amended) An elongated tubular body suitable for use within a human body which has a cylindrical wall defining an inner lumen therein, which is formed of a superelastic alloy consisting essentially of about 30 to about 52% titanium, from greater than 0 to about 10% of one or more elements selected from the group consisting of cobalt, chromium, iron, and copper in a stable austenite phase, and the balance of nickel, wherein said superelastic alloy: transforms from an austenite phase to a martensite phase upon the application of stress in an amount greater than 50 ksi; will transform to a martensite phase upon the application of stress; exhibits a recoverable strain of at least about 4% from the application of stress which transforms the austenite phase to the martensite phase; and has been fabricated by a thermomechanical processing treatment which includes a final cold working and a memory imparting heat treatment.

34. (cancelled)

35. (Previously Presented) The tubular body of claim 33, wherein the austenite-to-martensite transformation occurs at a relatively constant yield stress of above about 70 ksi.

36. (Previously Presented) The tubular body of claim 35 having an outer diameter of about 0.006 to about 0.05 inch and a wall thickness of about 0.001 to about 0.004 inch.

37. (Previously Presented) A tubular body for use within a lumen of a human body, comprising: a cylindrical shaped tubular member including a cold worked alloy of titanium, nickel, cobalt, and chromium, and having a wall thickness of about 0.001 to 0.004 inch and an outer diameter of about 0.006 to 0.05 inch.

38. (Previously Presented) A tubular element for placement within a lumen of a human body, comprising:

a hollow tubular shaped element having an inner lumen extending therein, and including an alloy of titanium, nickel, cobalt, and chromium, said alloy further comprising an element selected from the group consisting of palladium, platinum, and niobium, wherein the alloy is cold worked.

39. (Previously Presented) The tubular element of claim 38, wherein the alloy is cold worked about 10% to about 40%.

40. (Previously Presented) The tubular element of claim 38, wherein the hollow tubular shaped element has an outer diameter of about 0.006 to 0.05 inches.

41. (Previously Presented) The tubular element of claim 38, wherein the hollow tubular shaped element has a wall thickness of about 0.001 to 0.004 inch.

42. (Previously Presented) The elongated tubular body of claim 33, wherein said thermomechanical processing treatment imparts a final cold working ranging from about 10 to about 70%.

43. (Currently Amended) An elongated tubular member for use in a body lumen, comprising: an elongated body comprising a superelastic NiTi alloy, wherein said superelastic NiTi alloy further comprises at least one ternary element, and said ternary

alloy transforms from an austenite phase to a martensite phase upon the application of stress in an amount greater than 50 ksi.

44. (Previously Presented) The elongated tubular member of claim 43, wherein said at least one ternary element is chosen from Cu, Fe, Co, Cr, Pt, and Pd.

45. (Previously Presented) The elongated tubular member of claim 43, wherein said superelastic NiTi alloy has an austenite finishing temperature A_f of less than or equal to 40° C.

46. (Previously Presented) The elongated tubular member of claim 43, wherein said at least one ternary element is chosen from Pt and Pd.

47. (Previously Presented) The elongated tubular member of claim 46, wherein said at least one ternary element is present in said superelastic NiTi alloy in an amount ranging from greater than 0 atomic % to about 10 atomic %.

48. (Previously Presented) The elongated tubular member of claim 43, wherein said superelastic NiTi alloy comprises at least two ternary elements.

49. (Cancelled)

50. (Currently Amended) The elongated tubular member of claim 43[[49]], wherein said superelastic NiTi alloy transforms from an austenite phase to a martensite phase when under an applied stress of about 70 ksi or greater.

51. (Previously Presented) The elongated tubular member of claim 43, wherein the entire elongated body is formed from said superelastic NiTi alloy.

52. (Previously Presented) The elongated tubular member of claim 43, wherein only a portion of the elongated body is formed from said superelastic NiTi alloy.

53. (Previously Presented) The elongated tubular member of claim 43, wherein said elongated body includes a proximal portion and a distal portion, wherein said distal portion comprises said superelastic NiTi alloy.

54. (Previously Presented) The elongated tubular member of claim 43, wherein said elongated body comprises a proximal portion and a distal portion, wherein the proximal portion is at least partially coated with a polymer material.

55. (Previously Presented) The elongated tubular member of claim 53, wherein the proximal portion that is coated with said polymer material comprises said superelastic NiTi alloy.

56. (Previously Presented) The elongated tubular member of claim 43, wherein said superelastic NiTi alloy exhibits at least 4% recoverable strain.

57. (Currently Amended) A method for making an elongated tubular member for use in a body lumen, comprising:

providing a superelastic NiTi alloy, said NiTi alloy further comprising at least one ternary element; and

cold working said superelastic NiTi alloy to form an elongated tubular body;
wherein said superelastic NiTi alloy transforms from an austenite phase to a martensite phase upon the application of stress in an amount greater than 50 ksi.

58. (Previously Presented) The method of claim 56, further comprising heat treating said superelastic NiTi alloy.

59. (Previously Presented) The method of claim 57, wherein said at least one ternary element is chosen from Cu, Fe, Co, Cr, Pt, and Pd.

60. (Previously Presented) The method of claim 57, wherein said at least one te